

From: dh.oregonwild@gmail.com on behalf of Doug Heiken
[dh@oregonwild.org]
Sent: Wednesday, August 27, 2014 2:58 PM
To: YON Donald R
Subject: Oregon Nonpoint Source Management Program Plan -
comments

NOTE: The email address provided on this website is incorrect:
<http://www.deq.state.or.us/wq/nonpoint/plan.htm>

don.yon@deq.state.or.us

Doug Heiken, Oregon Wild
PO Box 11648, Eugene OR 97440
dh@oregonwild.org, 541.344.0675

----- Forwarded message -----

From: **Doug Heiken** <dh@oregonwild.org>
Date: Wed, Aug 27, 2014 at 2:46 PM
Subject: Oregon Nonpoint Source Management Program Plan - comments
To: don.yon@deq.state.or.us

FROM: Doug Heiken, Oregon Wild | PO Box 11648, Eugene, OR 97440 | 541-344-0675 | dh@oregonwild.org

TO: Oregon DEQ

ATTN: c/o Don Yon, don.yon@deq.state.or.us, Nonpoint Source Pollution Coordinator

DATE: 27 Aug 2014

RE: Oregon Nonpoint Source Management Program Plan - comments

Please accept the following comments from Oregon Wild regarding the proposed Oregon

Nonpoint Source Management Program Plan, <http://www.deq.state.or.us/wq/nonpoint/plan.htm>. Oregon Wild represents approximately 10,000 members and supporters who share our mission to protect and restore Oregon's wildlands, wildlife and waters as an enduring legacy.

Oregon's rivers and streams are critical public resources that deserve steadfast protection from degradation in all forms. Oregon Wild supports stronger efforts to control non-point source pollution, especially from logging, grazing, agriculture, off-highway vehicles, development, mining, and roads.

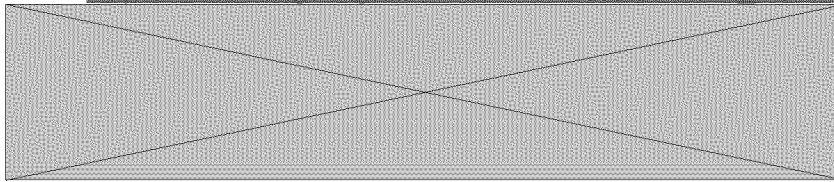
We urge DEQ to stop delegating non-point source pollution regulation to the "captured agencies" (e.g., ODA, ODF) that mostly just promote agriculture and forestry. These agencies are not willing or not equipped to address the well-documented water quality problems from non-point sources. They have been far too slow to adopt necessary regulations to protect water quality. They rely too much on voluntary and incentive-based mechanisms that are inadequate to protect the public interest. In short, these agencies have a strong tendency to protect economic interests instead of protecting water quality. We understand the ODA only responds to citizen complaints. Denying ODA staff authority to take action on WQ violations, is a very odd way of protecting water quality. ODF has been on notice for more than 10 years that it needs to do more to protect water temperature, protect small & medium streams, minimize cumulative watershed effects, avoid adverse impacts from road drainage and wet weather road use, provide fish passage, and protect unstable slopes. They have taken baby steps but failed to take the bold steps necessary to protect the public interest in clean water. ODF has talked for years about how to address (or avoid addressing) stream temperature, but ODF has done little to ensure that streams receive their required continuous input of large wood. If ODF's pace of efforts to improve water temperature standards is any indication, all the other known deficiencies will remain unaddressed in 50 years.

To fully realize the high standards of water quality that Oregon citizens deserve, DEQ must recognize that streams are functionally inseparable from their watersheds, especially the lands immediately adjacent to streams. Healthy rivers and streams need healthy riparian and stream-side areas that serve a variety of purposes: microclimate buffering, unimpeded movement of organisms, and capture/storage/release of water/energy/nutrients/carbon/sediment/large wood. (There is a lot in that last "capture/store/release" clause -- take it in). Streamside activities, including roads, logging, grazing, agriculture, too often reduce or remove vegetation so that the streamside area cannot serve these critically important biophysical functions, so water quality suffers as a result.

DEQ's non-point source plan is required to identify "the best management practices and measures which will be undertaken to reduce" pollution. The draft plan does not meet this test. The draft plan says:

- "• Participate in analysis of riparian stand information to determine if large wood recruitment and other riparian functions are being maintained [Cooperate with ODF in creating a timeline during 2014; Continue assisting ongoing analysis]" This does not amount to an adequate plan to address the need to restore and maintain large wood recruitment. Planning to do analysis, is not the same as planning to protect water quality.
- "Enhancement of landslide protections, with rules that require leave trees along slide - prone streams, to slow downstream movement and add large wood to streams." Large wood is needed not just adjacent to and below unstable slopes, but along all streams where the adjacent biophysical setting permits growth of large trees.
- "... the following questions were addressed [by RipStream] ... Are the FPA riparian rules and strategies effective in maintaining large wood recruitment to streams, downed wood in riparian areas, ..." This aspect of RipStream has not received much attention. It needs more attention in this study and others. It does not appear that ODF plan to do anything with the analysis in the near

term. http://www.oregon.gov/odf/BOARD/docs/2014_March/BOFATTCH_20140305_F_02



OAR 340-041-0011 Biocriteria says "Waters of the State must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities."

This standard represents a powerful tool to regulate activities that have adverse effects on the public's water and fish & wildlife. Forestry and agriculture practices today do not meet this standard because they remove too much vegetation and prevent critical functions that support biological communities. For example, dead wood in streams is important to meeting many aquatic and terrestrial wildlife habitat values. Dead wood is also important for ecological services such as the capture, storage and release of water, sediment, and nutrients including, carbon. Most riparian reserves are short of dead wood due to past and ongoing logging, roads, fire suppression, etc. Natural processes of stand growth and mortality will correct this shortage, whereas logging will capture and export mortality and reduce and delay recruitment of wood to both streams and uplands within riparian reserves. This is not a minor short-term effect, but

rather a significant long-term effect. Such effects are inconsistent with the biocriteria. Any proposal to log streamside areas must address these factors, develop clear goals, provide clear linkages between proposed actions and desired outcomes.

DEQ should take a broad view of "riparian areas." It's not just the wetland vegetation on the stream bank but includes the full extent of the area where large wood is recruited and the area where microclimate should be buffered/maintained to avoid degrading conditions for riparian dependent organisms, such as salamanders.

Riparian areas are widely considered to be important wildlife habitat. Cool air temperatures due to the presence of cool and turbulent surface waters, typically dense vegetative canopy cover, and their location in the lowest portions of watersheds combine to maintain a distinct microclimate along stream channels and in the adjacent riparian area. Maintaining the integrity of the vegetation in these areas is particularly important for riparian-dependent species of amphibians, arthropods, mammals, birds, and bats.

...

Large quantities of down logs are an important component of many streams. Coarse woody debris influences the form and structure of a channel by affecting the profile of a stream, pool formation, and channel pattern and position. The rate at which sediment and organic matter are transported downstream is controlled in part by storage of this material behind coarse woody debris. Coarse woody debris also affects the formation and distribution of habitat, provides cover and complexity, and acts as a substrate for biological activity. Coarse woody debris in streams comes directly from the adjacent riparian area, from tributaries that may not be inhabited by fish, and from hillslopes.

1994 Northwest Forest Plan FSEIS page 3&4-61.

Large wood in streams—preferably whole trees with root wads and all—provides the randomness and dynamic environment that fish absolutely need to survive in the ever-changing waters they occupy. Wood breaks up the current and spreads water sideways across its natural floodplain, creating wonderful, dynamic and necessary diversity while also absorbing energy that could cause serious damage downstream otherwise, such as flooding or unnatural erosion. It sorts gravels during high flows, creating those beautiful spawning gravel beds laid out like blankets among bigger rock. It makes those current breaks downstream of log jams. It provides cooling shade and cover, and slow pools and edge habitat that baby fish need after emerging from those gorgeous gravels to ride out high flows, find food and hide from prying eyes. Decomposing wood and the nutrients it produces jumpstarts that the natural processes critical to insect, animal, amphibian and plant life.

Alan Moore, Why Fish Love 'Large Woody Debris.' Trout Unlimited. 2-4-2013.
<http://troutunlimitedblog.com/large-woody-debris-makes-for-fishy-rivers/>

The biological community associated with streams includes a wide variety of wildlife that use the stream, but do not necessarily live in the water. The Northwest Forest Plan EIS discloses that there are 199 species (not including fish) that are associated with late-successional and old-growth forests and riparian areas, including 13 amphibians, 38 birds, 29 mammals, and a wide variety of non-vertebrates. Table FSEIS page 3&4-11, page 3&4-62.

Current amounts of large woody debris in coastal streams of Oregon and Washington are a fraction of historical levels (Bilby and Ward 1991, Bisson et al. 1987, NRC 1992). ... Stream surveys by private timber companies and federal land management agencies in the Northwest reveal an overall loss of stream habitat quality (FEMAT 1993, Kaczynski and Palmisano 1993, Wissmar et al. 1994) that is strongly related to changes in riparian vegetation, especially harvest of merchantable riparian timber.

Everest, Fred H.; Reeves, Gordon H. 2006. Riparian and aquatic habitats of the Pacific Northwest and southeast Alaska: ecology, management history, and potential management strategies. Gen. Tech. Rep. PNW-GTR-692. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 130 p.
http://www.fs.fed.us/pnw/pubs/pnw_gtr692.pdf

Large Wood

Large quantities of downed trees are a functionally important component of many streams (Swanson et al. 1976; Sedell and Luchessa, 1982; Sedell and Froggatt, 1984; Harmon et al. 1986; Bisson et al. 1987; Maser et al. 1988; Naiman et al. 1992). Large woody debris influences channel morphology by affecting longitudinal profile, pool formation, channel pattern and position, and channel geometry (Bisson et al. 1987). Downstream transport rates of sediment and organic matter are controlled in part by storage of this material behind large wood (Betscha 1979). Large wood affects the formation and distribution of habitat units, provides cover and complexity, and acts as a substrate for biological activity (Swanson et al. 1982; Bisson et al. 1987). Wood enters streams inhabited by fish either directly from the adjacent riparian zone from tributaries that may not be inhabited by fish, or hillslopes (Naiman et al. 1992).

Large wood in streams has been reduced due to a variety of past and present timber harvesting practices and associated activities. Many riparian management areas on federal lands are inadequate as long term sources of wood.

...

Riparian Ecosystem Components

...

Riparian vegetation regulates the exchange of nutrients and material from upland forests to streams (Swanson et al. 1982; Gregory et al. 1991). Fully functional riparian ecosystems have a suite of characteristics which are summarized below. Large conifers or a mixture of large conifers and hardwoods are found in riparian zones along all streams in the watershed, including those not inhabited by fish (Naiman et al. 1992). Riparian zone-stream interactions are a major determinant of large woody debris loading (House and Boehne 1987; Bisson et al. 1987; Sullivan et al. 1987). Stream temperatures and light levels that influence ecological processes are moderated by riparian vegetation (Agee 1988; Gregory et al. 1991). Streambanks are vegetated with shrubs and other low-growing woody vegetation. Root systems in streambanks of the active channel stabilize banks, allow development and maintenance of undercut banks, and protect banks during large storm flows (Sedell and Beschta 1991). Riparian vegetation contributes leaves, twigs, and other forms of fine litter that are an important component of the aquatic ecosystem food base (Vannote et al. 1980).

1993 FEMAT Report, pp V-13, V-25.

Shade is another important function of riparian vegetation. Riparian vegetation: (a) helps shade the water surface from direct solar insolation, (b) it shades soils and shallow groundwater before it is discharged to surface streams; (c) it reduces wind penetration and air mass mixing over the water surface, insulating the stream from summer daytime warming or winter night time cooling, and (d) it stabilizes streambanks and floodplain surfaces and provides a supply of downed wood that helps keep channels narrow and establishes and maintains internal hydrologic complexity (vertical and lateral flow exchange between surface water and hyporheic waters) that buffers stream temperature against the effects of solar insolation and air mass mixing.

Sincerely,

/s/

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